

What is claimed is:

1 ~~1.~~ A virtual biological fluid system for secure
2 communications, said system comprising:
3 a primary gateway having security information;
4 a plurality of communication layers, and
5 a security control plane formed using information from said
6 plurality of communications layers, whereby said security control plane in
7 conjunction with said security information forms a virtual biological fluid
8 insuring secure data transmission.

1 2. The system as recited in claim 1, further comprising:
2 at least one station in communication with said primary gateway;
3 and
4 a satellite in orbit and in communication with said primary
5 gateway and said at least one station, and said security control plane is on board
6 said satellite.

1 3. The system as recited in claim 2, wherein at least one of
2 said plurality of communication layers is an application layer.

1 4. The system as recited in claim 2, wherein at least one of
2 said plurality of communication layers is a presentation layer.

1 5. The system as recited in claim 2, wherein at least one of
2 said plurality of communication layers is a session layer.

1 6. The system as recited in claim 2, wherein at least one of
2 said plurality of communication layers is a transport layer.

1 7. The system as recited in claim 2, wherein at least one of
2 plurality of communication layers is a network layer.

1 8 The system as recited in claim 2, wherein at least one of
2 said plurality of communication layers is a data link layer.

1 9. The system as recited in claim 2, wherein at least one of
2 said plurality of communication layers is a physical layer.

1 10. A method for secure communications over a network,
2 said method comprising the steps of:
3 generating security data;
4 forming a security control plane using information from a
5 plurality of communications layers;
6 forming a virtual biological fluid using said security control
7 plane in conjunction with said security data, whereby secure data transmission
8 between a ground gateway and a station may occur; and
9 communicating secure data between said ground gateway and
10 said station.